water

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*Article*

# Enhanced Photo-Fenton Removal Efficiency with Core-Shell Magnetic Resin Catalyst for Textile Dyeing Wastewater Treatment

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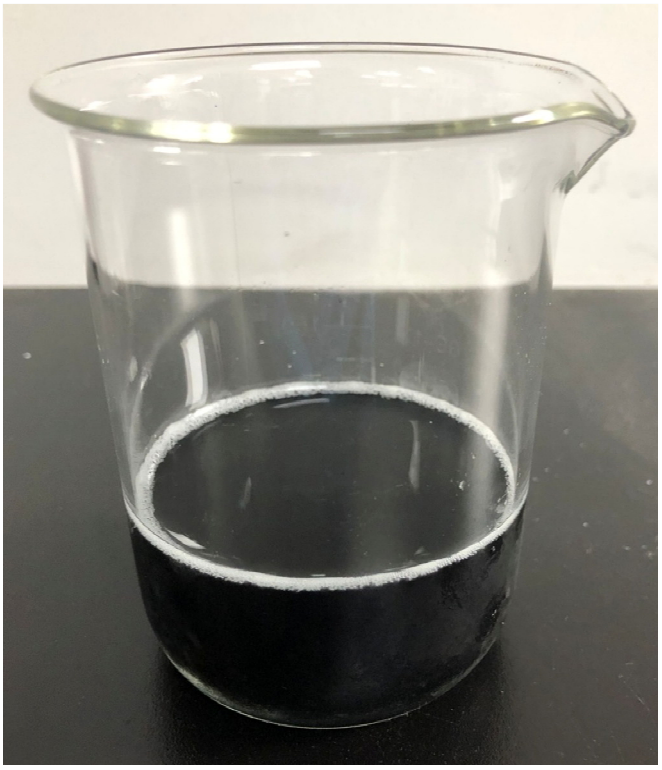
**Table S1.** Properties of the selected dye.

**Table S2**. Properties of actual textile dyeing wastewater sample.

**Table S3.** Surface structural properties of MAER.



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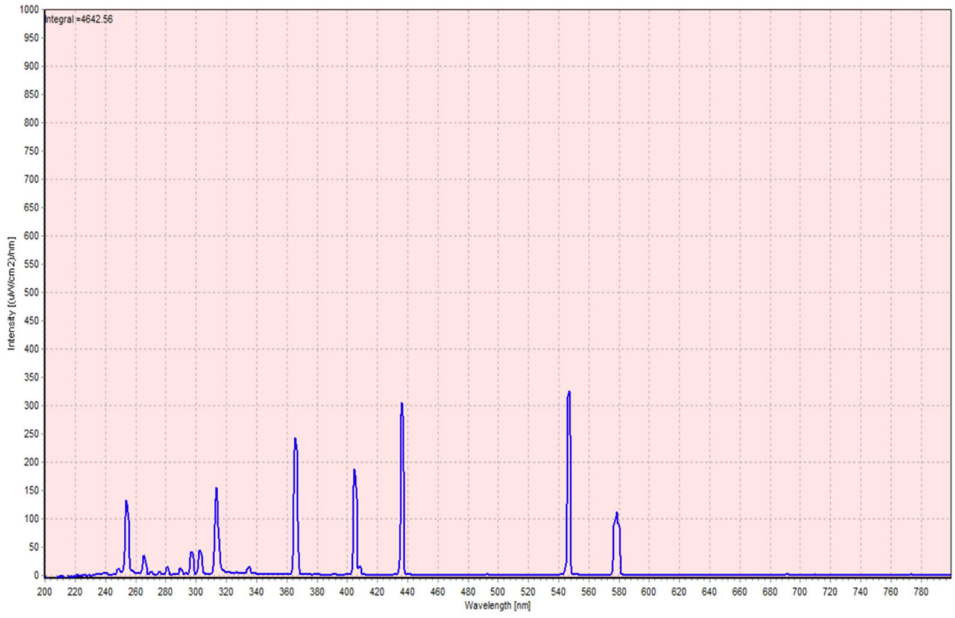


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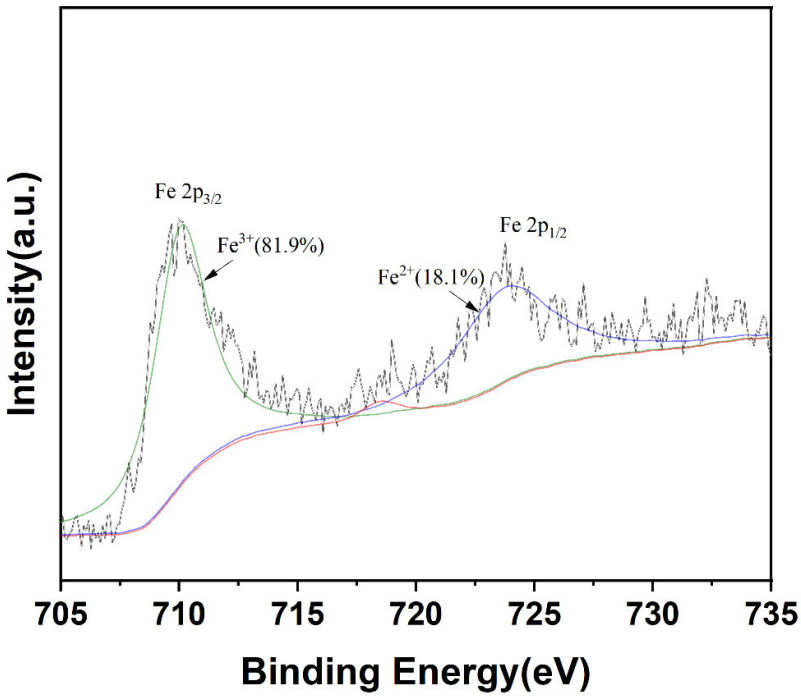



**Figure S3.** XPS spectra of Fe 2p for MAER catalyst.

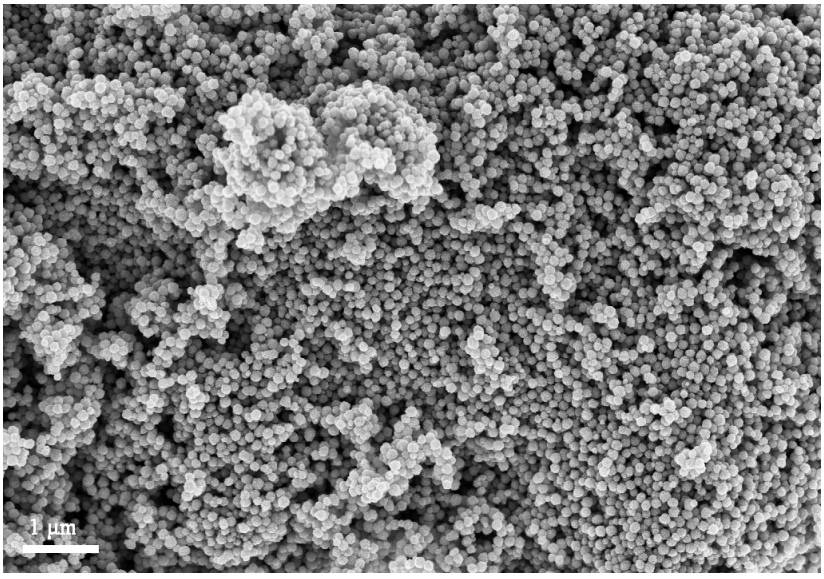
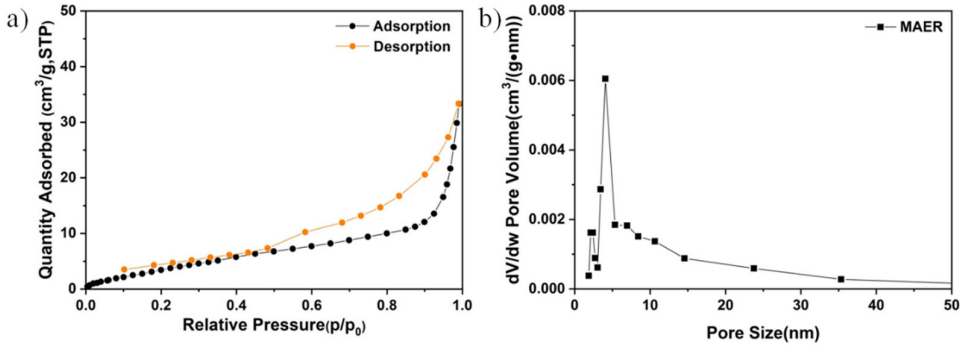



**Figure S4.** The SEM image of $Fe_3O_4$.

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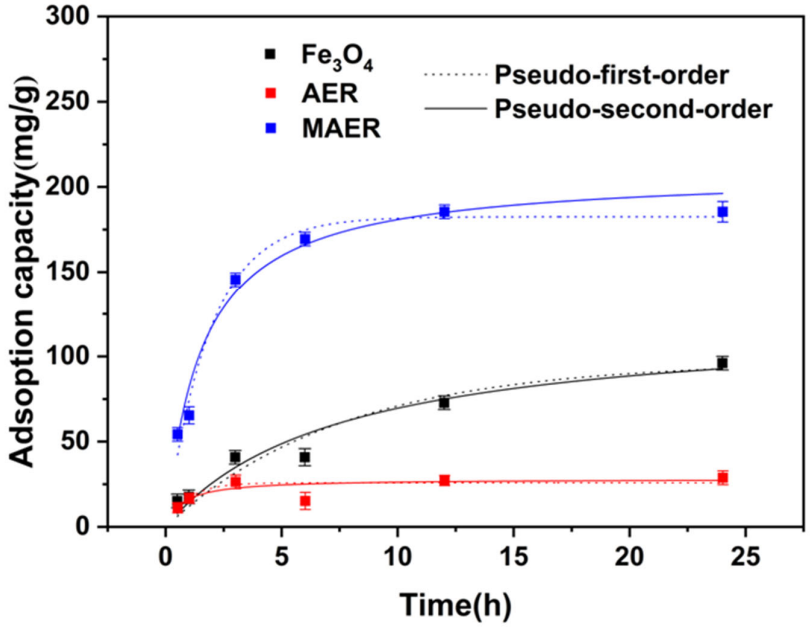



**Figure S6.** Adsorption behavior of X-3B on three synthesized materials.

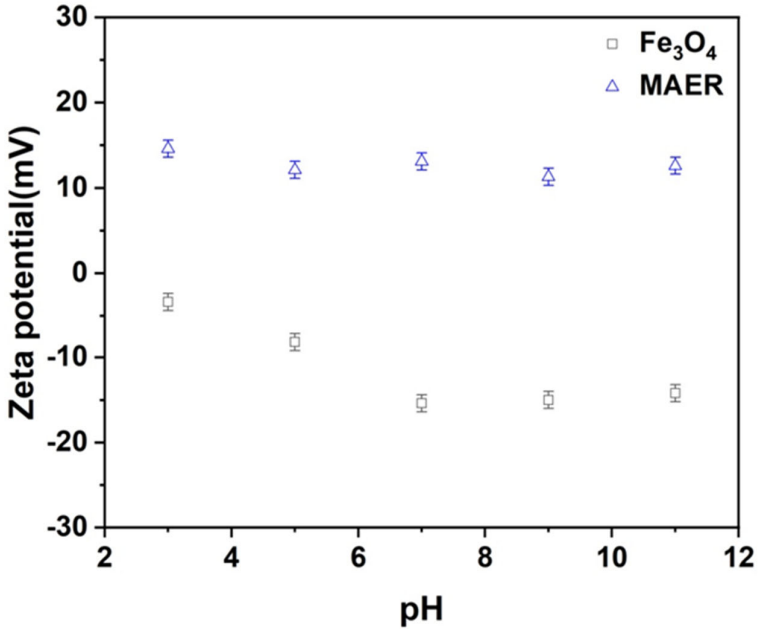
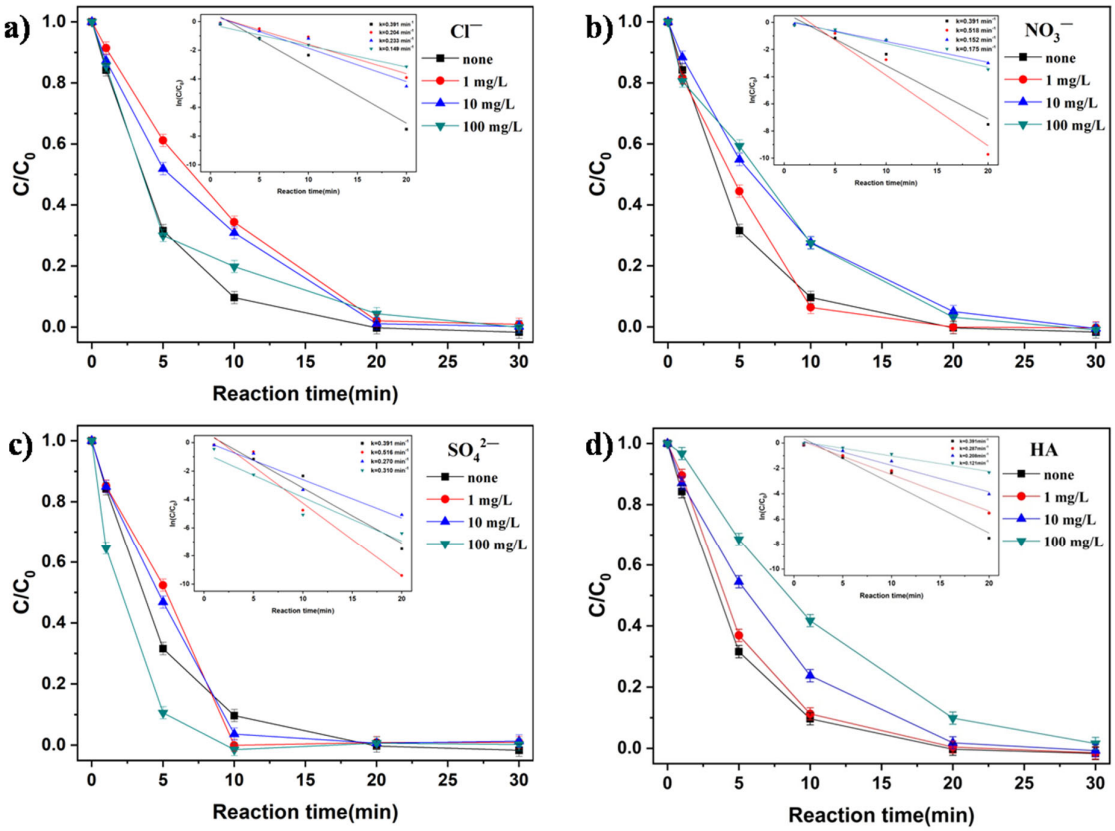



**Figure S7.** Zeta potentials of $Fe_3O_4$ and MAER in different solution pH values.

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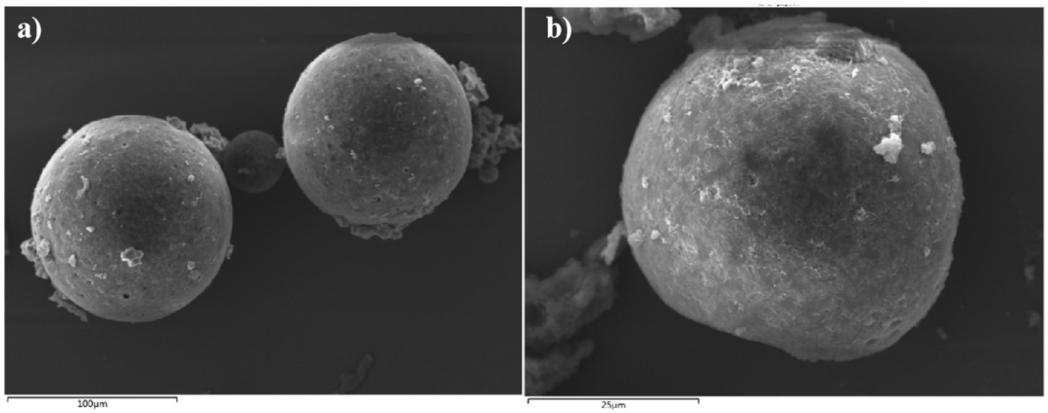


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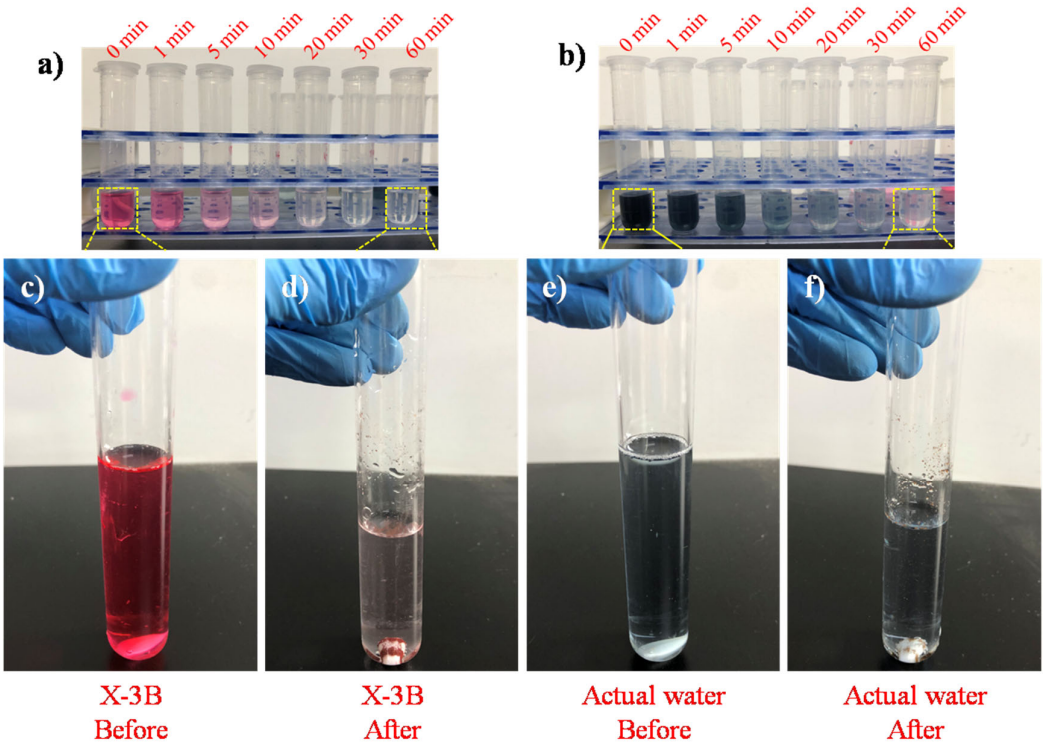



**Figure S10. a**) X-3B sample and **b**) actual wastewater sample collected by different reaction time; X-3B sample **c**) before and **d**) after UV-Fenton reaction; actual wastewater sample **e**) before and **f**) after UV-Fenton reaction.

**Table S1.** Properties of the selected dye.

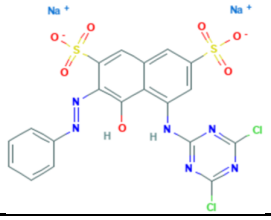
| Name | Molecular structure | Molecular formula | Molecular weight | CAS |
|---|---|---|---|---|
| Reactive brilliant red (X-3B) |  | $C_{19}H_{10}Cl_2N_6Na_2O_7S_2$ | 615.33 | 17804–49–8 |

**Table S2.** Properties of actual textile dyeing wastewater sample.

| Parameters | Wastewater |
|---|---|
| pH | 12.64 |
| Conductivity (μS/cm) | 9.75 |
| ORP (mV) | −333.4 |
| $UV_{400}$ | 2.62 |
| TOC (mg/L) | 77.95 |
| IC (mg/L) | 24.51 |

**Table S3.** Surface structural properties of MAER.

| Sample | $S_{BET}$ ($m^2$/g) | $V_{pore}$ ($cm^3$/g) | Average pore size (nm) |
|---|---|---|---|
| MAER | 18.67 | 0.051 | 8.69 |